

STATE OF CALIFORNIA STANDARDIZED AUTOPSY PROTOCOL FOR SUDDEN UNEXPECTED INFANT DEATH

INTRODUCTION

This Autopsy Protocol has been approved by the California Department of Health Services pursuant to Government Code, Section 27491.41. Effective July 1, 1990, this protocol is to be used on all infant deaths occurring in the first year of life where the death is sudden and unexpected, the cause of the death is unknown, and the case is under the Coroner's jurisdiction. This protocol shall be completed and filed with the State.

The coroner shall state on the death certificate that sudden infant death syndrome was the cause of death when the coroner's findings are consistent with the following definition:

The sudden death of an infant one year of age or younger which is unexpected and after a thorough postmortem examination including an autopsy, death scene investigation, and review of infant 's medical history, fails to identify an adequate cause of death.

Gross autopsy findings should be recorded by completing the checklist on the left-hand side of the page and a narrative description added as needed on the right-hand side of the page. Utilization of sketches and drawings is encouraged.

It is recommended that the brain be sectioned after fixing at least seven (7) days in buffered 10 percent formalin. Instructions and guidelines for histologic, toxicologic, and microbiologic examination; selection of photographs, radiographs, and collection of trace evidence; and preservation of evidence in suspected sex or child abuse are included in the Autopsy Protocol Procedure Manual.

Reports of all ancillary studies, including microscopic findings, toxicology, analyses, microbiologic cultures, and other studies must be attached to and submitted with this document. These attachments must be signed and dated by the person completing or reviewing them.

Please send copies of all completed Autopsy Protocols, as well as all Death Scene and Deputy Coroner Investigation Protocols (DHS 4439), promptly to:

State of California
Department of Health Services
Epidemiology Section
714 P Street, Room 476
Sacramento, CA 95814

STATE OF CALIFORNIA STANDARDIZED AUTOPSY PROTOCOL
FOR SUDDEN UNEXPECTED INFANT DEATH

Decedent's name	Age	Sex	Ethnicity
Local accession number	Date of birth	Date/time of death	Date/time of autopsy
Pathologist		County/District	

FINAL ANATOMIC DIAGNOSES

MICROBIOLOGY RESULTS

TOXICOLOGY RESULTS

CHEMISTRY RESULTS

Decedent's name		County		
Accession number		Pathologist		

	YES	NO	NO EXAM	COMMENTS
Recommended as indicated				
VIRUSES, trachea, stool				
BACTERIA, blood, CSF, fluids				
FUNGII, discretionary				
MYCOBACTERIA, discretionary				
Recommended as indicated				
BACTERIA, liver, lung, and myocardium				
VIRUSES, liver, lung, and myocardium				
PHOTOGRAPHS, include				
Name, case number, county, country, date				
Measuring device, color reference				
Consider front and back				
Gross abnormalities				
RADIOGRAPHIC STUDIES, consider				
Whole body				
Thorax and specific lesions				
EXTERNAL EXAMINATION				
Date and time of death				
Date and time of autopsy				
Sex (check) <input type="checkbox"/> Male <input type="checkbox"/> Female				
Observed race (check)				
<input type="checkbox"/> Caucasian <input type="checkbox"/> Asian <input type="checkbox"/> Black <input type="checkbox"/> Hispanic <input type="checkbox"/> Filipino <input type="checkbox"/> American Indian <input type="checkbox"/> Other (specify) _____				
WEIGHTS AND MEASURES				
Body weight	gm			
Crown–heel length	cm			
Crown–rump length	cm			
Occipitofrontal circumference	cm			
Chest circumference at nipples	cm			
Abdominal circumference at umbilicus	cm			
GENERAL APPEARANCE/DEVELOPMENT				
Development normal				
Nutritional status				
Normal				
Poor				
Obese				

Decedent's name		County		
Accession number		Pathologist		
	YES	NO	NO EXAM	COMMENTS
Hydration				
Normal				
Dehydrated				
Edematous				
Pallor				
HEAD				
Configuration normal				
Scalp and hair normal				
Bone consistency normal				
Other				
TRAUMA EVIDENCE				
Bruises				
Lacerations				
Abrasions				
Burns				
Other				
PAST SURGICAL INTERVENTION				
Scars				
Other				
RESUSCITATION EVIDENCE				
Facial mask marks				
Lip abrasions				
Chest ecchymoses				
EKG monitor pads				
Defibrillator marks				
Venipunctures				
Other				
CONGENITAL ANOMALIES, EXTERNAL				
INTEGUMENT				
Jaundice				
Petechiae				
Rashes				
Birthmarks				
Other abnormalities				

Decedent's name		County		
Accession number		Pathologist		

	YES	NO	NO EXAM	COMMENTS
EYES (remove when indicated and legal)				
Color (check) <input type="checkbox"/> Brown <input type="checkbox"/> Blue <input type="checkbox"/> Green <input type="checkbox"/> Hazel				
Cataracts				
Position abnormal				
Jaundice				
Conjunctiva abnormal				
Petechiae				
Other abnormalities				
EARS				
Low set				
Rotation abnormal				
Other abnormalities				
NOSE				
Discharge (describe if present)				
Configuration abnormal				
Septal deviation				
Right choanal atresia				
Left choanal atresia				
Other abnormalities				
MOUTH				
Discharge (describe if present)				
Labial frenulum abnormal (specify)				
Teeth present				
Number of upper				
Number of lower				
TONGUE				
Abnormally large				
Frenulum abnormal				
Other abnormalities				
PALATE				
Cleft				
High arched				
Other abnormalities				

Decedent's name		County		
Accession number		Pathologist		
	YES	NO	NO EXAM	COMMENTS
MANDIBLE				
Micrognathia				
Other abnormalities				
NECK abnormal				
CHEST abnormal				
ABDOMEN				
Distended				
Umbilicus abnormal				
Hernias				
Other abnormal				
EXTERNAL GENITALIA abnormal				
ANUS abnormal				
EXTREMITIES abnormal				
INTERNAL EXAMINATION				
Subcutis thickness 1 cm below umbilicus				
Subcutaneous emphysema				
Situs inversus				
PLEURAL CAVITIES abnormal				
Fluid (describe if present)				
Right				ml
Left				ml
PERICARDIAL CAVITY abnormal				
Fluid (describe if present) ml				
RETROPERITONEUM abnormal				
PETECHIAE (indicate if dorsal and/or ventral)				
Parietal pleura				
Right				
Left				
Visceral pleura				
Right				
Left				
UPPER AIRWAY OBSTRUCTION				
Foreign body				
Mucus plug				
Other				

Decedent's name		County		
Accession number		Pathologist		
	YES	NO	NO EXAM	COMMENTS
NECK SOFT TISSUE HEMORRHAGE				
HYOID BONE abnormal				
THYMUS				
Weight gm				
Atrophy				
Other abnormalities				
EPIGLOTTIS abnormal				
LARYNX abnormal				
Narrowed lumen				
TRACHEA abnormal				
Stenosis				
Obstructive exudates				
Aspirated gastric contents				
ET tube tip location				
MAINSTEM BRONCHI abnormal				
Edema fluid				
Mucus plugs				
Gastric contents				
Inflammation				
LUNGS				
Weight				
Right gm				
Left gm				
Abnormal				
Congestion, describe location, severity				
Hemorrhage, describe location, severity				
Edema, describe location				
Severity				
Consolidation (describe location, severity)				
Anomalies				
Pulmonary artery thromboembolization				
PLEURA abnormal				

Decedent's name		County		
Accession number		Pathologist		

	YES	NO	NO EXAM	COMMENTS
RIBS abnormal				
Fractures with hemorrhages				
Callus formation				
Configuration abnormal				
DIAPHRAGM abnormal				
CARDIOVASCULAR SYSTEM				
Heart weight				gm
Left ventricular thickness				mm
Right ventricular thickness				mm
Septal thickness maximum				mm
Mitral valve circumference				cm
Aortic valve circumference				cm
Tricuspid valve circumference				cm
Pulmonary valve circumference				cm
Myocardium abnormal				
Ventricular inflow/outflow tracts narrow				
Valvular vegetations/thromboses				
Aortic coarctation				
Patent ductus arteriosus				
Chamber blood (check) <input type="checkbox"/> fluid <input type="checkbox"/> clotted				
Congenital heart disease				
Atrial septal defect				
Ventricular septal defect				
Abnormal pulmonary venous connection				
Other				
Location of vascular catheter tips				
Occlusive vascular thrombosis, locations				
Other abnormalities				
ESOPHAGUS abnormal				
STOMACH abnormal				
Describe contents and volume				
SMALL INTESTINE abnormal				
Hemorrhage				
Volvulus				

Decedent's name		County		
Accession number		Pathologist		

	YES	NO	NO EXAM	COMMENTS
Describe contents				
COLON abnormal				
Congestion				
Hemorrhage				
Describe contents				
APPENDIX abnormal				
MESENTERY abnormal				
LIVER abnormal				
Weight			gm	
GALLBLADDER abnormal				
PANCREAS abnormal				
SPLEEN abnormal				
Weight			gm	
KIDNEYS abnormal				
Weight, right			gm	
Weight, left			gm	
URETERS abnormal				
BLADDER abnormal				
Contents, volume			ml	
PROSTATE abnormal				
UTERUS, FALLOPIAN TUBES, AND OVARIES abnormal				
THYROID abnormal				
ADRENALS abnormal				
Right			gm	
Left			gm	
Combined			gm	
PITUITARY abnormal				
CONGENITAL ANOMALIES, INTERNAL				
CENTRAL NERVOUS SYSTEM				
Whole brain weight				
Fresh			gm	
Fixed			gm	
Combined cerebellum/brainstem weight				
Fresh			gm	

Decedent's name		County		
Accession number		Pathologist		
	YES	NO	NO EXAM	COMMENTS
Fixed			gm	
Evidence of trauma				
Scalp abnormal				
Galea abnormal				
Fractures				
Anterior fontanelle abnormal				
Dimensions				
Calvarium abnormal				
Cranial sutures abnormal				
Closed (fused)				
Overriding				
Widened				
Base of skull abnormal				
Configuration abnormal				
Middle ears abnormal				
Foramen magnum abnormal				
Hemorrhage, estimate volumes (ml)				
Epidural				
Dural				
Subdural				
Subarachnoid				
Intracerebral				
Cerebellum				
Brainstem				
Spinal cord				
Intraventricular				
Other				
Dural lacerations				
Dural sinus thrombosis				
BRAIN (if externally abnormal, fix before cutting)				
Configuration abnormal				
Hydrocephalus				
Gyral pattern abnormal				

Decedent's name		County		
Accession number		Pathologist		
	YES	NO	NO EXAM	COMMENTS
Cerebral edema				
Herniation				
Uncal				
Tonsillar				
Tonsillar necrosis				
Leptomeningeal exudates (culture)				
Cerebral contusions				
Malformations				
Cranial nerves abnormal				
Circle of Willis/basilar arteries abnormal				
Ventricular contours abnormal				
Cerebral infarction				
Contusional tears				
Other abnormalities				
SPINAL CORD				
Inflammation				
Contusion(s)				
Anomalies				
Other abnormalities				
MANDATORY SECTIONS TAKEN				
Skin, if lesions				
Thymus				
Lymph node				
Epiglottis, vertical				
Larynx, supraglottic, transverse				
Larynx, true cords, transverse				
Trachea and thyroid, transverse				
Trachea at carina, transverse				
Lungs, all lobes				
Diaphragm				
Heart, septum, and ventricles				
Esophagus, distal 3 cm				
Terminal ileum				
Rectum				

Decedent's name		County		
Accession number		Pathologist		
	YES	NO	NO EXAM	COMMENTS
Liver				
Pancreas with duodenum				
Spleen				
Kidney with capsule				
Adrenal				
Rib with costochondral junction				
Submandibular gland				
Cervical spinal cord				
Pontomedullary junction				
Pons				
Midbrain				
Hippocampus				
Frontal lobe				
Cerebellum				
Choroid plexus				
OIL RED O STAINED SECTIONS, IF INDICATED				
Heart				
Liver				
Muscle				
DISCRETIONARY MICROSCOPIC SECTIONS				
Supraglottic soft tissue				
Lung hilum				
Pancreatic tail				
Mesentery				
Stomach				
Colon				
Appendix				
Testes or ovaries				
Urinary bladder				
Psoas muscle				
Palatine tonsils				
Basal ganglia				
METABOLIC DISORDERS				
Retain on filter paper in all case				
Whole blood (1 drop)				

Decedent's name		County		
Accession number		Pathologist		
	YES	NO	NO EXAM	COMMENTS
Urine (1 drop)				
Hair (taped down)				
TOXICOLOGY AND ELECTROLYTES				
Fluid and tissues saved for one yea				
Whole blood and serum, save at -70°C & +4°C				
Liver, save 100 gms at -70°C				
Frontal lobe, save at -70°C				
Urine, save at -70°C				
Bile				
Vitreous humor				
Serum				
Gastric contents				
Analyses performed, but not limited to				
Cocaine and metabolites				
Morphine and metabolites				
Amphetamine and metabolites				
Volatiles (ethanol, acetone, etc.)				
Other indicated by history and exam				
FROZEN TISSUES, save at -70°C				
Lung				
Heart				
Liver				
Lymph node				